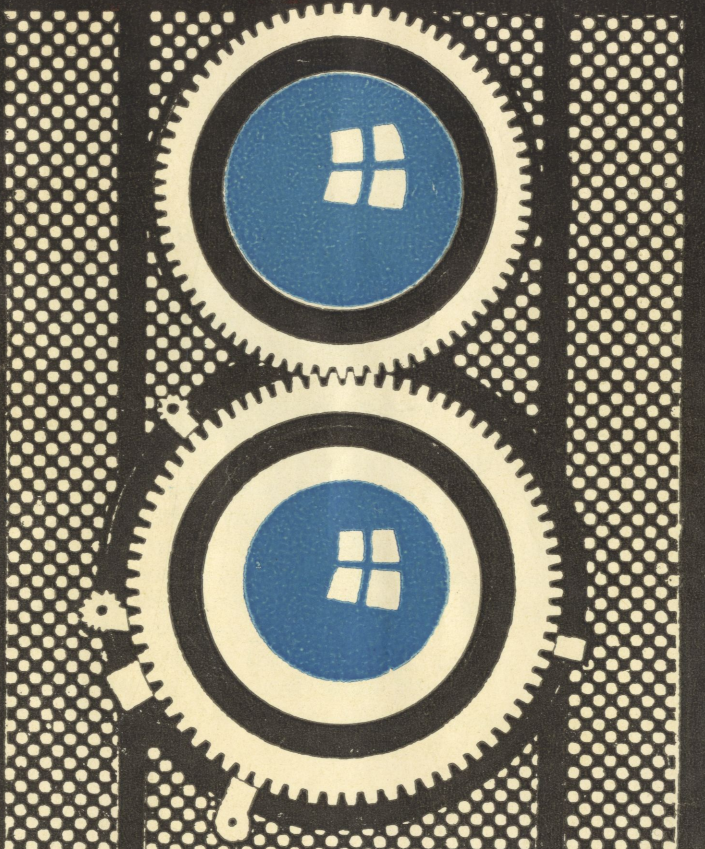
Lubitel 2



GENERAL FEATURES

The «Lubitel-2» — is a low priced modern camera intended for amateurs.

The camera design incorporates many advantages: speed lens, combination reflex and frame type viewfinder, means for accurate focusing, between-the-lens shutter providing for five fast shutter speeds plus setting for *B* exposure, self-timer and flash synchronizer.

The camera can be loaded in daylight and can be operated hand-held as well as mounted on a tripod; when using interchangeable supplementary lenses the camera can be employed for reproduction work.

The camera takes up to twelve 6×6 pictures on standard wide film.

The reflex viewfinder being opened, a large

and distinct image is seen in the ground glass at any illumination, thus allowing to adjust the camera position when the object has been already chosen, or to find a new interesting object.

The viewfinder image focusing is effected by slightly turning either of the lens knurled rings.

Range, diaphragm and exposure scales as well as all setting knobs are located so as to ensure quick and convenient service.

The number of exposures made is seen in the peep window and is indicated by figures provided on the light-protective paper.

The reflex viewfinder allows to take pictures with the camera held above the photographer's head or turned horizontally taking pictures at the right angle.

The frame viewfinder is used for photographing at eye-level (in this case the pictures obtained are characterized by more natural perspective); the frame viewfinder is very convenient when the photographer is skillful enough to estimate distance by eye and to achieve sharp focusing by means of the distance scale.

The camera is loaded in daylight. To facilitate the loading the camera is provided with a hinged back.

CAMERA COMPONENTS AND THEIR FUNCTIONS

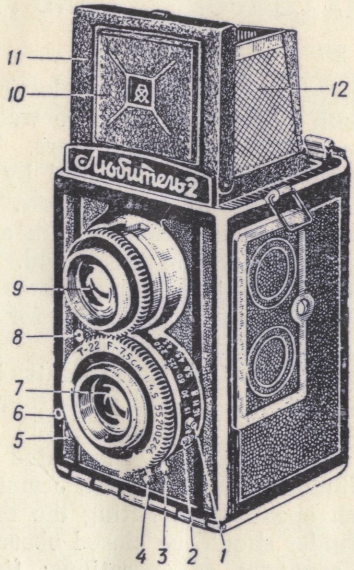
The camera body is made of plastics. A receptacle with a cover in the side wall of the camera accommodates the filters. The receptacle may be opened or closed by turning the cover around the fastening screw. The bottom of the camera is provided with a nut for mounting the camera on the tripod.

The taking lens is a coated three-element 7.5 cm f/4.5 anastigmat providing for superior quality and sharpness of pictures.

The reflex viewfinder incorporates the viewfinder proper and a ground glass representing a small circle in the centre of the collector lens with a hinged magnifier mounted above it. The viewfinder is provided with a metal lighthood which opens when lifting the top cover. The viewfinder should be closed observing the following sequence of operations: first close the magnifier, then the hood side walls, the hood rear panel with a square window and then the hood front panel until it catches.

The viewing lens has an aperture ratio 1 : 2.8, which is considerably higher than that of the taking lens and therefore is more suitable for accurate focusing.

Focusing of image on the ground glass circle



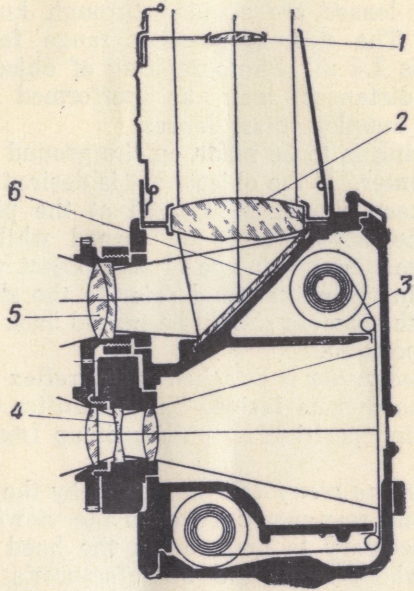
1 — flash contact; *2* — automatic release lever; *3* — diaphragm setting lever; *4* — exposure setting ring guide; *5* — cable release threaded socket; *6* — shutter release lever; *7* — taking lens; *8* — shutter cocking lever; *9* — viewing lens; *10* — panel with Manufacturer's trade mark engraved; *11* — front frame; *12* — light protective hood

and on the film takes place simultaneously, as both lenses are coupled through knurled wheels. The nearest possible range for focusing is 1.4 m. Photographing of objects at closer distances may be performed with close-up supplementary lenses.

Focusing is to be made on the ground glass circle center. If the object that is desired to be most sharp should be located at the picture edge, the camera is to be turned while focusing so that the image of this object would appear in the center, and prior to the shutter release the camera should be turned back to its initial position.

The magnifier is attached to the reflex viewfinder hood from inside. The magnifier is set to working position by pulling it up from the hood.

The frame viewfinder is formed by the front frame and rear panel. To open the viewfinder it is necessary to press down the hood front panel which bears the Manufacturer's trade mark until it catches; to close the viewfinder it is enough to slightly pull-on the hood rear panel. When viewing, the camera should be held at eye-level hand the object should be sighted through a square window in the hood rear panel keeping the camera at a distance at which the window edges coincide with those



1 — magnifier; *2* — collector viewing lens with ground glass circle at the bottom; *3* — film; *4* — taking lens; *5* — viewing lens; *6* — mirror

of the square opening in the hood front panel. In this case the limits of the field of view will be the limits of the shot.

The distance scale is engraved on the viewing lens mount, its divisions indicate meters.

The between-the lens shutter offers the automatic exposure speeds $^1/_{250}$; $^1/_{125}$; $^1/_{60}$; $^1/_{30}$; $^1/_{15}$ sec. When setting the shutter at index *B* it is possible to expose for any length of time depending on how long the release knob is held depressed. Shutter speeds are selected by turning the exposure setting ring guide until the index line on the ring edge coincides with the point indicating the desired shutter speed (intermediate positions of the index line do not correspond to mean values of shutter speeds).

Prior to exposing the shutter should be cocked by turning the shutter cocking lever downwards as far as it goes. When releasing the shutter, the release lever or cable release screwed into a threaded socket should be smoothly pressed. Set at *B* the shutter remains open as long as the release lever is pressed.

The self-timer built into the shutter is wound up by turning the lever downwards as far as it goes. The device is operated as follows: having set the required shutter speed, wind up the

shutter cocking and automatic release levers, then press the shutter release lever. The shutter releases automatically after a delay of 7—12 sec. and the picture is taken.

The flash bulb synchronizer provides for synchronization of the bulb flash with a moment of the shutter full opening.

When using automatic-flash bulbs the shutter may be set at any shutter speed.

The synchronizer operates automatically after the shutter has been released.

The diaphragm is provided inside the shutter mechanism between the elements of the taking lenses; it controls the lens opening.

The change of the lens opening is effected by turning the lever with indicator around the scale.

The lens opening is changed in cases when it is desirable to increase the depth of field or when the amount of light is too large at a selected shutter speed. Depth-of-field values of the taking lens at various diaphragm settings and distances are given in the Table.

Each change of exposure scale setting corresponds to double change of exposure time.

Diaphragm scale settings (excepting the first) are calculated so that changing the lens

Depth of Field Table for Lens (focal length — 7.5 cm)

Distance scale division in metres	Diaphragme					
	1 : 4.5	1 : 5.6	1 : 8	1 : 11	1 : 16	1 : 22
1.4	1.33— 1.48	1.32— 1.51	1.28— 1.56	1.24— 1.62	1.19— 1.75	1.12— 1.93
2	1.86— 2.17	1.83— 2.22	1.77— 2.33	1.69— 2.48	1.58— 2.79	1.47— 3.26
2.8	2.53— 3.15	2.48— 3.25	2.36— 3.49	2.23— 3.84	2.04— 4.60	1.86— 6.04
4	3.47— 4.75	3.37— 4.97	3.15— 5.55	2.92— 6.48	2.61— 8.99	2.31—16.70
5.6	4.62— 7.17	4.43— 7.70	4.06— 9.16	3.69—12.00	3.20—24.68	2.76—∞
8	6.13—11.62	5.80—13.06	5.19—17.90	4.58— ∞	3.85— ∞	3.23— ∞
11	7.74—19.21	7.22—23.48	6.29— ∞	5.43— ∞	4.42— ∞	3.62—∞
∞	25.83— ∞	20.76— ∞	14.53— ∞	10.57— ∞	7.26— ∞	5.28— ∞

opening by one setting doubles or makes two times less the amount of light reaching the film. For instance, exposure time with an aperture ratio 1 : 5.6 should be twice as less as the previous one (1 : 8). If the exposure time for the diaphragm of 1 : 5.6 is known, but lighting conditions require a diaphragm of 1 : 16, the exposure time should be 8 times increased as the diaphragm setting lever is to be displaced by three settings.

The figures engraved on the shutter and diaphragm scales indicate only fraction denominators: for example, 15 instead of 1 : 15, 4.5 instead of 1 : 4.5 etc.

The diaphragm scale between the figures «8» and «11» and the distance scale between the figures «11» and «8» are marked with red dots. When the diaphragm is set on these dots all objects at a distance of 4.5 m to ∞ are reproduced with sufficient sharpness.

LOADING THE CAMERA

1. Open the camera back raising preliminarily both lock springs in turn.

2. Brake the seal of the film roll, insert the end of the film protective paper into a slit of the take-up spool and fold it; then by turning

the film winding knob, wind up 2—3 layers of the paper on the spool.

3. Having checked the proper tension of the paper, insert the film spool into the lower film compartment, replace the camera back and press the lock springs.

4. Turn the window cover knob counter-clockwise and turn the winding knob until first the warning marks on the protective paper and later a figure «1» appear in the red window; then close the window cover and the camera is ready for service.

TAKING PICTURES

1. Adjust the lens opening.

2. Set the shutter to the exposure required and wind it up.

3. Find the shot limits by means of the viewfinder.

4. Focus on the object until the ground glass image is sharp.

5. Release the shutter lever.

6. Advance the film (just after taking each picture, lest you should forget). To do this, turn slowly the winding knob until the next exposure number appears, then close the window cover.

UNLOADING THE CAMERA

1. After the twelfth exposure has been made, rewind the film protective paper. Sometimes when the winding is almost completed, the turning of the knob is detained by the paper jammed in the take-up spool slit. However, this should not prevent unloading the camera in daylight.

2. Open the camera back.

3. Pull out and slightly turn the film winding knob.

4. Get the spool holder out of the camera body (by turning the holder tang towards oneself).

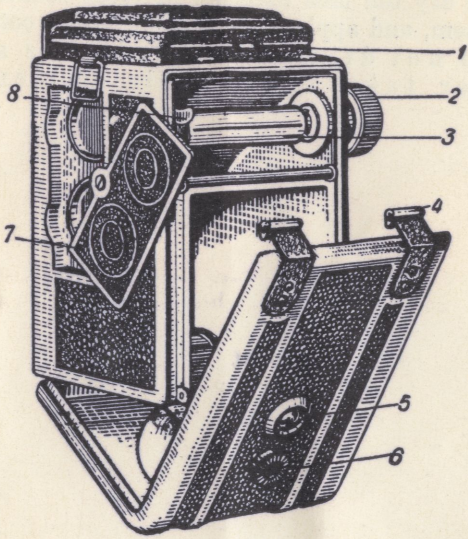
5. Carefully take out the spool with the exposed film, seal the protective paper end and keep the film safely until it is developed.

6. Take the next spool out of the lower compartment of the holder and place it so that its slit end would face the winding knob.

7. Replace the holder and turning the winding knob clockwise, make sure that the spool is turning.

GENERAL INSTRUCTIONS

The «Lubitel-2» camera requires careful handling.



1 — viewfinder hood lock; *2* — film winding knob; *3* — take-up spool; *4* — camera back spring lock; *5* — peep window; *6* — peep window cover knob; *7* — cover of filter accommodating receptacle; *8* — spool holder tang

Keep the lens surfaces absolutely clean, contamination could affect quality of pictures. Wipe dry the lens external surfaces breathing on them, and apply clean linen cloth or cotton.

Do not dismantle the lenses and never take apart their elements.

Тип. ЛООМП, зак. № 378

Lensovnarkhoz

Leningrad United
Optical-Mechanical
Enterprises

CERTIFICATE

«LUBITEL-2»

Camera

No 081931

SET

1. Camera «Lubitel-2» 1
2. Film rewinder 1
3. Cable release 1
4. Shoulder strap 1
5. Lens cap 1
6. Carrying case 1
7. Packing box 1
8. Description 1
9. Certificate 1

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The camera corresponds to the specifications affirmed by the council of experts of the constant pavilion of Sojusglavtorg.

„ 28 " XII 1963

ОТК 316

Тип. ЛООМП, зак. № 2196.